



## SILVERSHINE – THE CUTLERY DRYING MACHINE

Models CDM12K, CDM6K, CDMStar

### OPERATING INSTRUCTIONS

#### **IMPORTANT**

**FILL OUT and RETURN  
ENCLOSED PRODUCT REGISTRATION  
WARRANTY CARD**

#### **Sales & Service**

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# ORIGINAL EQUIPMENT LIMITED WARRANTY

Campus Products, Inc. ("CPI") warrants to the original purchaser that any original part that is found to be defective in material or workmanship will, at our option, subject to provisions hereinafter stated, be replaced with a new or rebuilt part.

The labor warranty remains in effect one (1) year from installation or fifteen (15) months from the shipping date, whichever occurs first. CPI will bear normal labor charges performed during standard business hours not subject to overtime, holiday rates or any additional fees.

***Failure to replace the manufacturer approved drying/polishing granulate on a timely and regular basis (every 4 months) will lead to the automatic forfeiture of warranty rights and the Manufacturer will not be obliged to perform any repairs and/or replacements.***

The parts warranty remains in effect one (1) year from installation or (15) months from the shipping date, whichever occurs first.

This warranty ***does not apply*** to:

1. Replacement of brushes, brush stems or brush ends due to damage or wear of any kind.
2. Replacement of granulate necessitated by day to day use.
3. Replacement of heating elements necessitated by day to day use.
4. Equipment damage caused by accident, shipping, improper installation or alteration or by expired granulate.
5. Original or ongoing calibration.
6. Equipment used under conditions of abuse, misuse, carelessness or abnormal condition including equipment subjected to harsh or inappropriate chemicals, poor water quality or equipment with missing or altered serial numbers.
7. Equipment modified in any manner from original model, substitution of parts other than factory authorized parts, removal or any parts including legs, or addition of any parts.
8. Any losses or damage resulting from malfunction, including loss of product or consequential or incidental damages of any kind.

This warranty is exclusive and is in lieu of all other warranties, expressed or implied, including the implied warranties of merchantability and fitness for purpose. In no event shall the Company be liable for loss of use, loss of revenue, or loss of product or profit, or for indirect or consequential damages. This warranty is in lieu of all other warranties expressed or implied and CPI neither assumes or authorizes any persons to assume for it any other obligation or liability in connection with CPI equipment.







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## OVERVIEW FOR SILVERSHINE – THE CUTLERY DRYING MACHINE

### WHAT THE MACHINE IS DESIGNED TO DO

... dry, sanitize and polish cutlery.

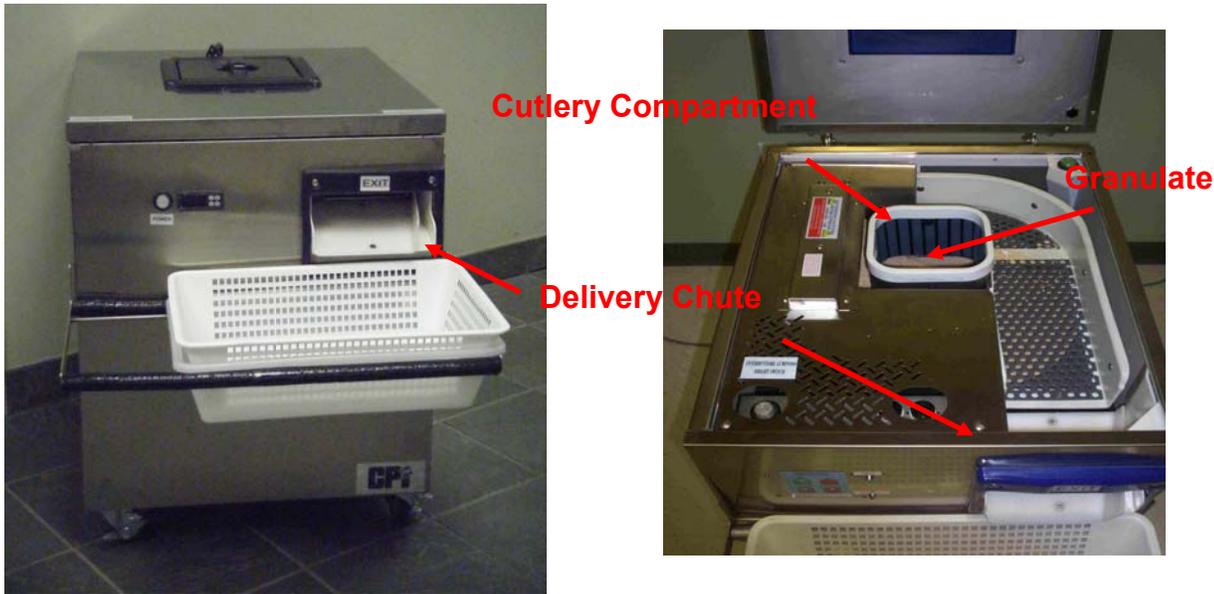
All restaurants have the labor intensive job of hand drying and polishing cutlery to try to remove the scale marks. Whether the metal is stainless steel or silver, the problem remains the same – a lengthy manual process with inconsistent results.

With your new Silvershine – The Cutlery Drying Machine (CDM), you not only produce bright, shiny, sanitized cutlery all the time, but you reduce the time necessary to achieve these results. With continued use, the Silvershine will impart a polish to your cutlery.

The purpose of this document is to provide you with the necessary operating instructions to get the most out of your Silvershine – The Cutlery Drying Machine.



## HOW THE MACHINE WORKS



### MODEL CDM 12K shown

Silvershine – The Cutlery Drying Machine is available in four model sizes; CDM Star, CDM2K, CDM6K, and CDM12K – each model provides a different cutlery drying / sanitizing capacity. The CDM Star is a table top unit, all other models are positioned on the floor.

The Silvershine is comprised of a compact, patented stainless steel “Nautilus” tub, ultra violet C light source (UV-C light), calrod heated element and ground vegetable granulate.

Very simply, this is how it works.

When you turn power on to your Silvershine, the vegetable granulate is heated by the calrod element and the patented “Nautilus” tub begins to agitate. Remove your **clean, hot/warm**, wet cutlery from the dishwasher and feed it directly into the cutlery compartment located in the top of your cutlery drying machine. The agitation of the tub causes the cutlery to move through the tub passing under the UV-C light. The heated granulate dries the cutlery and imparts a shine, while the UV-C light sanitizes the cutlery.

From the time that the cutlery enters the cutlery compartment, passes under the UV-C light and exits from the delivery chute, bright and shiny, into the cutlery basket, is about 30-40 seconds.



## TECHNICAL FEATURES

<b>Model</b>	<b>CDMStar</b>	<b>CDM2K</b>	<b>CDM6K</b>	<b>CDM12K</b>
<b>Amps</b>	3.5	4.6	5.8	6.25
<b>Watts</b>	400	1200	1200	1300
<b>Dimensions (W X D X H)</b>	22 X 17 X 19	18 X 22 X 20	22 X 27 X 32	26 X 32 X 32
<b>Volts</b>	120	120	120	120
<b>Weight (lbs.)</b>	70	97	232	296
<b>Cutlery Capacity / hr</b>	1,500	2,000	6,000	12,000
<b>Approx. Noise Level – all models</b>				
<b>Empty</b>		= 70 dbA	78 dbC	
<b>Full</b>		= 73 dbA	79 dbC	



## **INSTALLATION INSTRUCTIONS**

### **POSITIONING THE CUTLERY DRYER:**

#### **FLOOR MODELS**

The dryer does not need to be anchored to the ground, but it must be positioned so that the four legs rest firmly on the ground. Adjust the nuts on the legs to level the unit, if necessary.

If the dryer comes with castors, it must be positioned on a flat surface. Two of the wheels must be locked by pressing down on the lever of the wheel support.

#### **CDM STAR**

The CDM Star is a table top unit. It does not need to be anchored to the table it is sitting on, but it must be positioned so that the unit sits level.

#### **ALL MODELS**

Do not position the dryer against the wall or in contact with any other appliances or furniture. This is to prevent the unit from vibrating against anything.

#### **WIRING**

The machine comes equipped with a power cable that has a standard plug at the end. Insert the plug into a 120V single-phase socket.



## **FILLING THE TANK WITH GRANULATE**

Place the drying material inside the “Nautilus” tub as follows:

- Switch on the machine by lifting the stainless steel lid and pressing the Main Power switch. Press the “Start” icon located on the front control panel of the Silvershine. Gently close the lid.
- Remove the cutlery chute lid from the machine.
- Open the bag of granulate – for FLOOR MODELS the bag contains slightly more than one full load (10 -15% more). The bag for a CDM Star contains approx. four loads. Once the bag is open, pour it into the tub and save the remainder of the granulate for topping up the tub at a later date.
- Replace the cutlery chute lid.

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## HOW TO OPERATE THE MACHINE

### THE CONTROL PANEL

#### Control Panel



**MODEL CDM 12K shown**

There are only 2 controls on the cutlery dryer.

1. On/Off power switch
2. **Digital Temperature Regulator** – The cutlery dryer is equipped with a digital temperature regulator that controls the temperature of the machine. The temperature indicated on the display is factory set and **MUST NOT BE ALTERED**. This pre-set working temperature keeps the granulate at the optimum temperature for best performance of your unit.

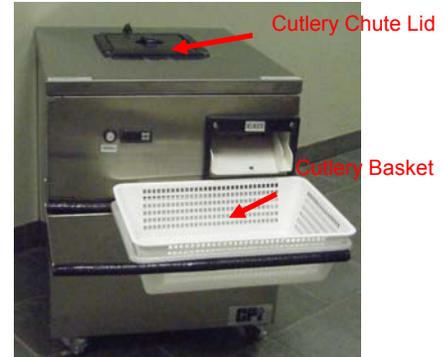


## HOW TO SWITCH ON THE MACHINE

For your Silvershine machine to perform at peak efficiency, the granulate must be warmed to properly dry the cutlery. **Therefore the dryer needs to be switched on at least 20-30 minutes before use to preheat the granulate until the thermoregulator reads approx. 125°F .**

### Proceed as follows to switch ON the machine:

1. Ensure the unit is plugged in.
2. Place a cutlery basket under the delivery chute.
3. Lift the stainless steel lid to check the tank contains the correct amount of granulate. The granulate level should be approx. 4-5 cm below the grill. Top up with more granulate, if necessary. Gently close the lid.
4. Press the “On/Off” button located on the outside of the cutlery dryer to activate the dryer.
  - The button will be illuminated; the granulate and tub will start to vibrate;
  - the Thermoregulator located on the control panel will also illuminate indicating that the heater has been activated.
5. The machine has a safety mechanism built into it so that it will not operate with the stainless steel lid open. If it does, it means the machine has been tampered with, so switch it off immediately and call for service. Do not use it until the service centre has made the necessary repairs.



## HOW TO SWITCH “OFF” THE MACHINE

Remember that the purpose of the granulate found in Silvershine is to dry the cutlery. It accomplishes this by absorbing moisture found on the cutlery. Therefore when you finish using the machine, it is advisable to let it run for at least 15 minutes before shutting it off to allow the granulate to dry out.

### Proceed as follows to switch OFF the machine:

1. Press the “ON/OFF” button located on the front of the machine. The motor will shut off and the “Nautilus” tub will vibrate more vigorously for a short time before stopping completely.
  1. The light on the “ON/Off” button will go out;
  2. the light and digital temperature display on the Thermoregulator will also go out indicating that the heater has been turned off.



## OPERATING TIPS

- 1) Be sure the unit is as level as possible. If the floor is not level, it is better to have the unit **tilt slightly from left to right** rather than right to left.
- 2) Always be sure to lock the front two (2) castors in place to ensure the unit stays stationary during operation. You will notice during start-up and shut down that the unit will vibrate with more intensity.
- 3) The direction of “vibration” is always clockwise.
- 4) When filling (refilling) the unit with granulate, always underfill the tank first, then gradually add granulate until you see the granulate reaching the first perforated grid. To accomplish this open the lid of the unit, hold down the safety switch (back right) then switch the unit ON by depressing the START button on the control panel. Watch the granulate move; it should reach the first grid and within one or two inches past the grid line it should all have sifted back thru the grid – overfilling will cause an excess of granulate to vibrate out of the unit and into the catch bin.
- 5) Prior to removing the perforated “sieve” bin (to transport the cutlery), give the combined bins a good strong SHAKE, this will ensure that any granulate sticking to cutlery will be shaken off and drop into the solid bin below.
- 6) Always be sure to PREHEAT the unit for a MINIMUM of thirty (30) minutes prior to use.
- 7) Always be sure to run the unit, WITH THE HOPPER LID OFF, for at least thirty (30) minutes after the last use of the day.

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## TROUBLESHOOTING

### REPAIR TIPS:

1. Motor and interior access is easier from the RIGHT side of the unit with the unit lying on its left side.
2. Most troubleshooting can be performed with the front panel OFF allowing for access to the control panel/circuit board compartment.
3. The use of LOCTITE on the front panel screws and bin holder is recommended.

<b>Problem</b>	<b>Possible causes</b>	<b>Solution</b>
<ul style="list-style-type: none"> <li>• POWER BUTTON is not illuminated</li> </ul>	<ul style="list-style-type: none"> <li>• Fuses on control panel are blown</li> <li>• No connection of Safety Shutoff switch</li> <li>• Faulty Safety Shutoff switch</li> </ul>	<ul style="list-style-type: none"> <li>• Check power cord connection at wall</li> <li>• Check fuse on back of control panel (open the front of the unit). Replace if necessary.</li> <li>• Check amp. reading at motor (with panel removed)</li> <li>• Ensure sound connection between SAFETY SHUTOFF switch and machine (back right under the lid of the machine)</li> <li>• Replace SAFTEY SHUTOFF switch</li> </ul>
<ul style="list-style-type: none"> <li>• Loud or Uneven agitation</li> </ul>	<ul style="list-style-type: none"> <li>• Tub is not balanced</li> <li>• Missing spacers</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure that the stainless INOX tub is sitting on the four (4) chassis springs</li> <li>• Place correctly on springs</li> <li>• Check that the rear two (2) hinges are tight and secure</li> <li>• Check that the four (4) spacers (2 front and 2 back) are present thereby lifting the compartment shroud "off" of the agitating tub</li> </ul>
<ul style="list-style-type: none"> <li>• Agitation is Counterclockwise (Cutlery is not emerging from the discharge chute) (agitation is rough or loud)</li> </ul>		<ul style="list-style-type: none"> <li>• Turn machine on/off (at the CONTROL PANEL) several times in succession</li> <li>• Check electrical connection at the condenser (capacitor) - restart</li> <li>• Remove protective housing at bottom of motor, ensure counter weights (yellow) are secure, tight, and in line with each other. You must remove the front panel and the right side panel to access the motor. Restart</li> <li>• Remove motor from housing and check the unprotected weights (yellow) at the top of the motor are secure, tight and in line with each other AND WITH THE BOTTOM COUNTERWEIGHTS. Re-attach motor, restart (prior to replacing panels).</li> <li>• Replace motor</li> </ul>



<ul style="list-style-type: none"><li>• UV Lamp is not on</li></ul>	<ul style="list-style-type: none"><li>• Lamp has burned out</li><li>• Lamp ballast has no power</li><li>• Fuse on control board has blown</li></ul>	<ul style="list-style-type: none"><li>• Remove four screws on the shroud housing the UV lamp, check that the lamp has not burned out. Replace lamp if necessary</li><li>• Check for power to the lamp – check for power to interior lamp ballast (behind control panel, right side of compartment– you must remove the front panel for access), Replace lamp ballast if necessary</li><li>• Check for power to lamp ballast, check fuse on control board behind the controller (with panel off).</li></ul>
<ul style="list-style-type: none"><li>• No Heat</li></ul>	<ul style="list-style-type: none"><li>• Fuse on control board has blown</li><li>• Faulty thermostat</li><li>• Faulty element</li></ul>	<ul style="list-style-type: none"><li>• Check for power to heating element, check fuse on control board (with panel off)</li><li>• Check thermostat control, mounted on interior compartment (with front panel off), ensure it is set 1/8<sup>th</sup> of turn from “HIGH” – replace thermostat, if necessary</li><li>• Replace heating element if necessary</li><li>• With unit empty, run for 30 minutes, pilot indicator on control panel should “cycle” on and off</li></ul>



## MAINTENANCE INSTRUCTIONS

### INTRODUCTION:

If this machine is installed and operated properly, it will provide lengthy trouble-free operation without requiring any particular maintenance. However, for the machine to operate efficiently, it is vital to clean it frequently and carry out the following routine check

There two basic types of maintenance:

**GENERAL MAINTENANCE**, which can be done by the user.

**EXTRAORDINARY MAINTENANCE**, which must be done by a qualified service engineer.



## GENERAL MAINTENANCE

### REPLACING THE GRANULATE:

When the drying material becomes very powdery and is noticeable on your cutlery, or very dirty due to pieces of food not being removed during the washing process, it must be replaced. Used under normal conditions, i.e. 1 or 2 hours a day, the granulate needs to be changed every 90-120 days.

To do this, proceed as follows:

- Remove the cutlery chute lid
- Turn the unit on and have the unit start to agitate
- You must use a suction device (SHOP VAC) to remove all granulate.
- Put the hose of the shop vac into the cutlery compartment and have it extract the granulate

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## **REGULAR CLEANING:**

The vibration motor is self-lubricating and does not require any maintenance.

It is necessary to clean the inside of the unit on a regular basis for hygienic reasons and to clear the fan intake.

Proceed as follows:

- Remove the plug from the power socket.
- Unscrew the four screws in the side and remove the front and side panels.
- Clean thoroughly using a suction device.
- Clean all the surfaces with a damp cloth and degreaser.
- Dry carefully using an ordinary kitchen towel.
- Remount the front and side panels.



## EXTRAORDINARY MAINTENANCE

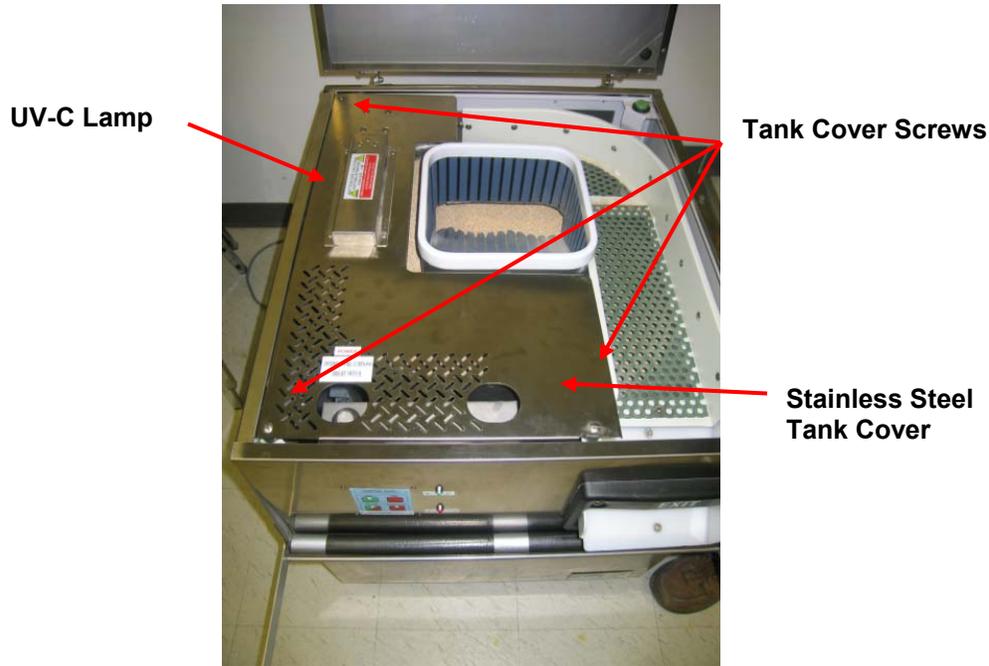
**This must only be done by a qualified service engineer.**

Since there are so few parts to the Silvershine, replacing faulty components is an extremely rare occurrence. The most common components that may require changing are the UV-C lamp and a fuse.

Ensure that only **original spare parts** are used and that they are carefully repositioned in the unit to ensure proper operation.



## HOW TO REPLACE THE UV-C LAMP



To replace the UV-C lamp proceed as follows:

- 1. Remove the plug from the power socket.**
2. Ensure that the UV-C lamp has cooled down before changing the lamp
3. Open the stainless steel lid. .



4. Remove the stainless steel tank cover of the unit by removing the three panel screws.



**Electric cord clips**



5. Using the appropriate screwdriver, remove the clips that secure the electric cord to the unit.



6. Remove the four screws that affix the stainless steel cover of the UV-C lamp to the Silvershine unit.



7. Leaving the sponge in place in the UV-C cavity, gently remove the lamp from the ballast and replace with the new UV-C lamp.
8. Reassemble the UV-C cover, electric cord clips, and stainless steel cover on the unit.



## HOW TO REPLACE THE FUSE:

Stemshine is outfitted with a fuse to protect against overload. If the fuse blows, the machine will not switch on and the light on the Main Switch (1) will not illuminate. If this happens, proceed as follows:

1. Remove the plug from the power socket.



2. Using the appropriate screwdriver, remove the basket holder from the unit.

3. Remove the four screws that hold the front panel to the unit.

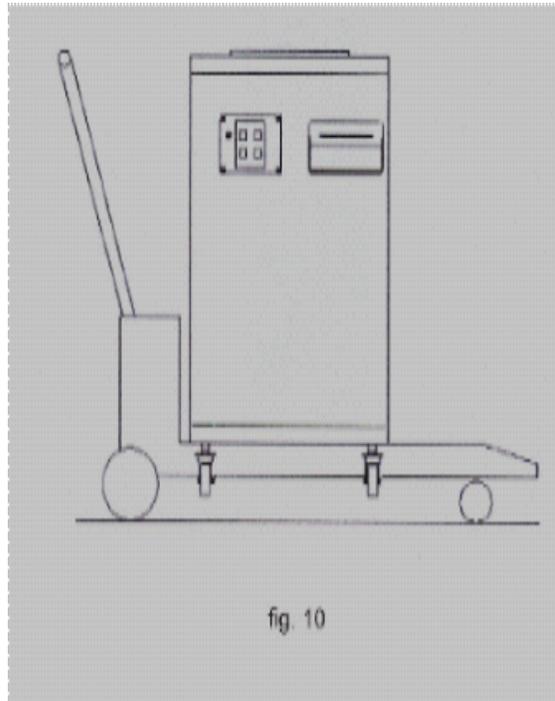


4. **Gently** remove the panel from the unit. Ensure that the fuses have blown and replace them.
5. Reassemble the unit.
6. Plug in the unit and turn it on.



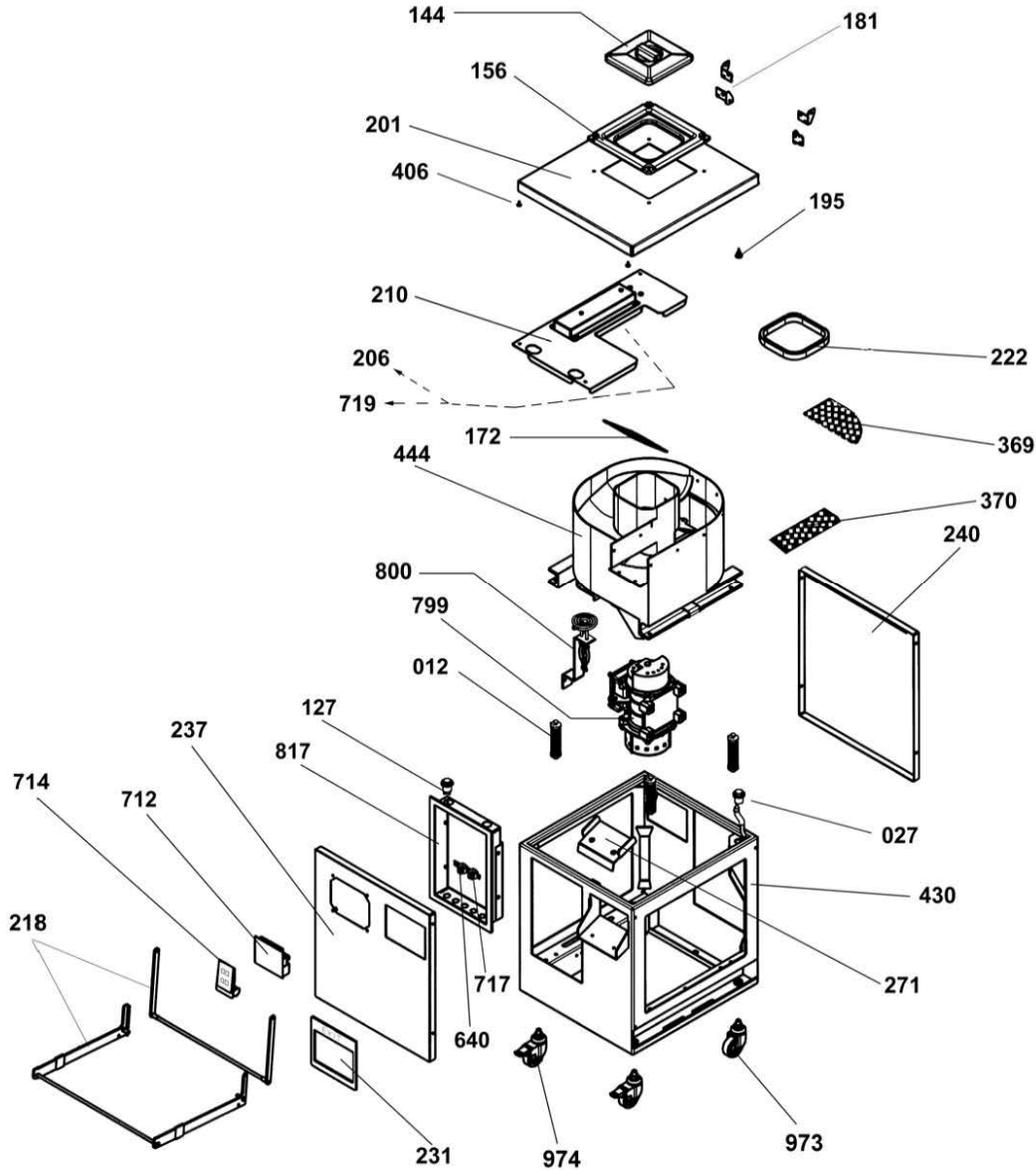
## HANDLING AND TRANSPORT

The machine must be transported using a transpallet on a flat smooth surface (see Fig 10). The total weight of the machine is 190 kg.





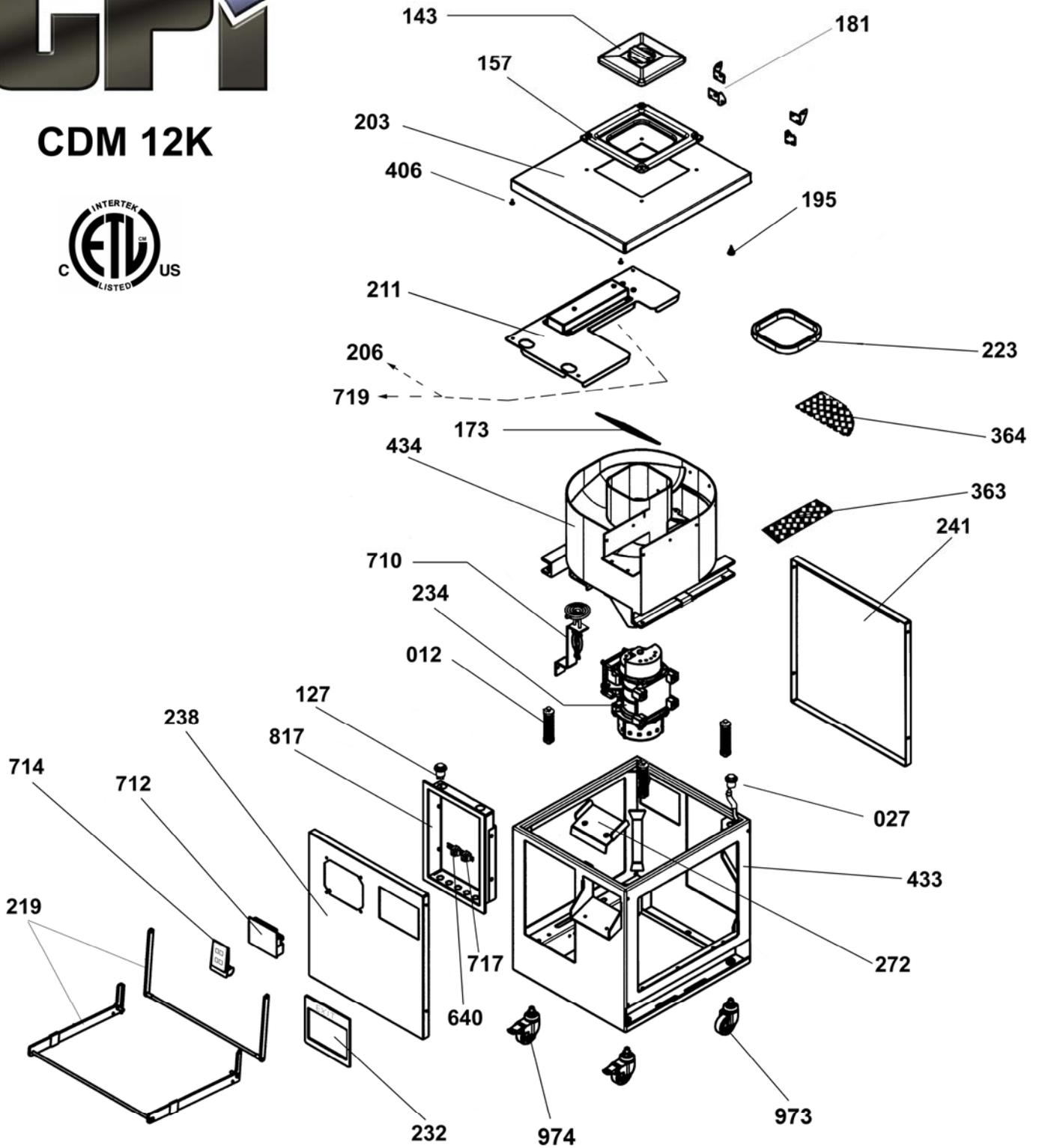
## EXPLODED PARTS DIAGRAM – CDM 6K



Part #	Description	Part #	Description	Part #	Description
012	Complete Spring	973	Wheel without brake	444	Stainless steel tank
974	Wheel with brake	231	Exit sign holder	799	Motor complete
271	Plastic Chute	144	Plastic Lid	640	Thermostat
156	Frame	228	Tank Frame	800	Heating Element
222	Entry Frame	314	Basket with holes	719	Lamp holder
173	Entry Lining	Complete stainless		717	Ballast
218	Basket holder	210	steel tank cover	206	UV light
237	Front Guard	201	Stainless steel lid	714	Electronic Keypad
181	Stainless steel hinge	240	Rear guard	909	Electronic board
370	Front grid	817	Stainless Steel box	164	Sensor
975	Capacitor	369	Rear Grid	127	Light switch
904	Cable	027	Limit switch and cable	406	Rubber pads
		195	Knob		

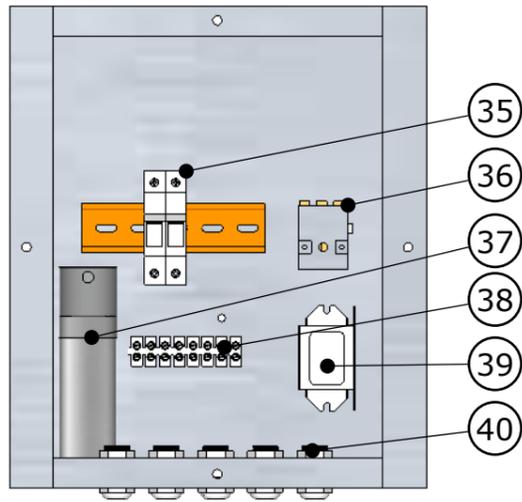


# CDM 12K

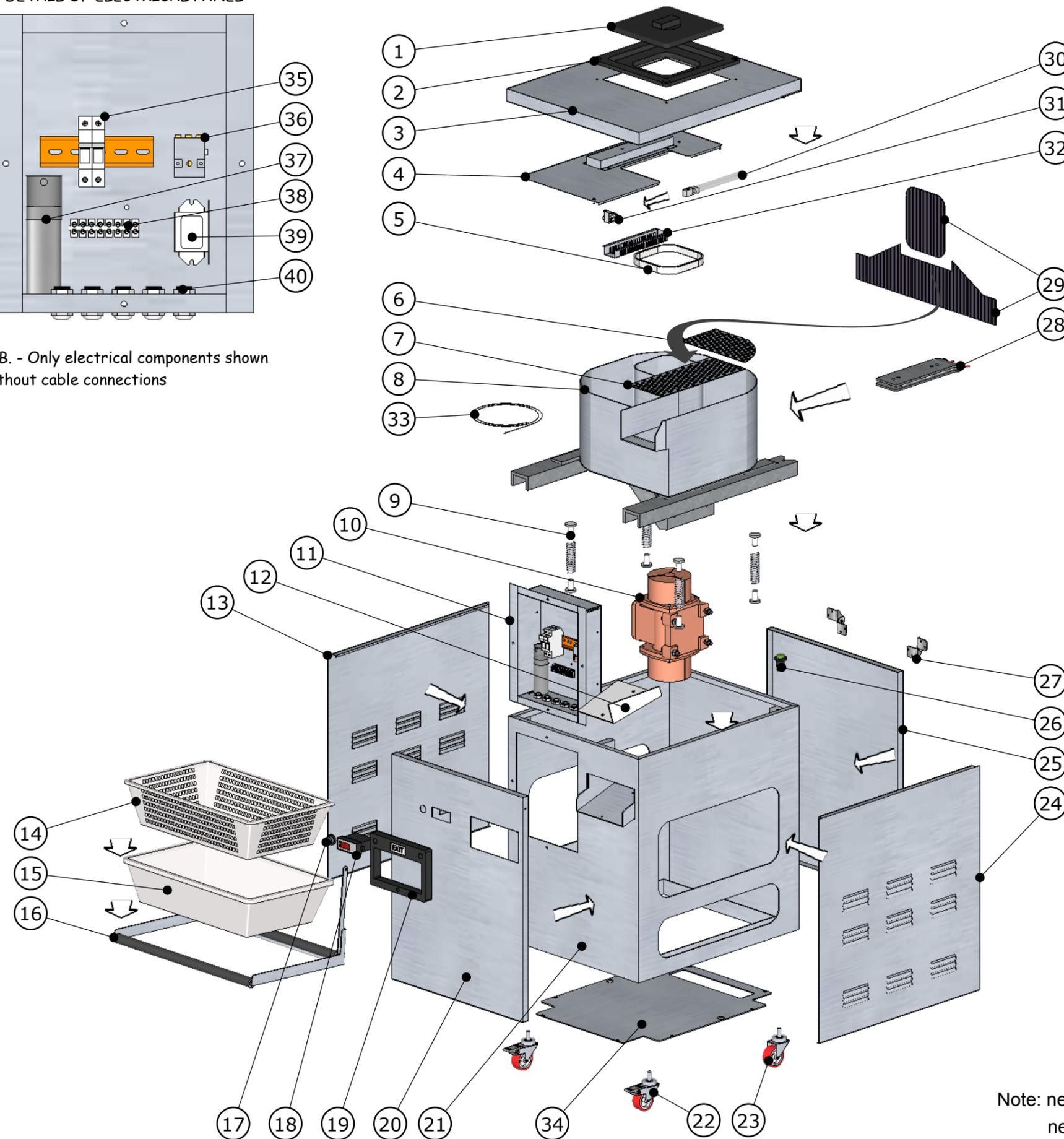


Parts layout prior to S/N 11.7021

DETAIL OF ELECTRICAL PANEL



N.B. - Only electrical components shown without cable connections



LIST OF MATERIALS

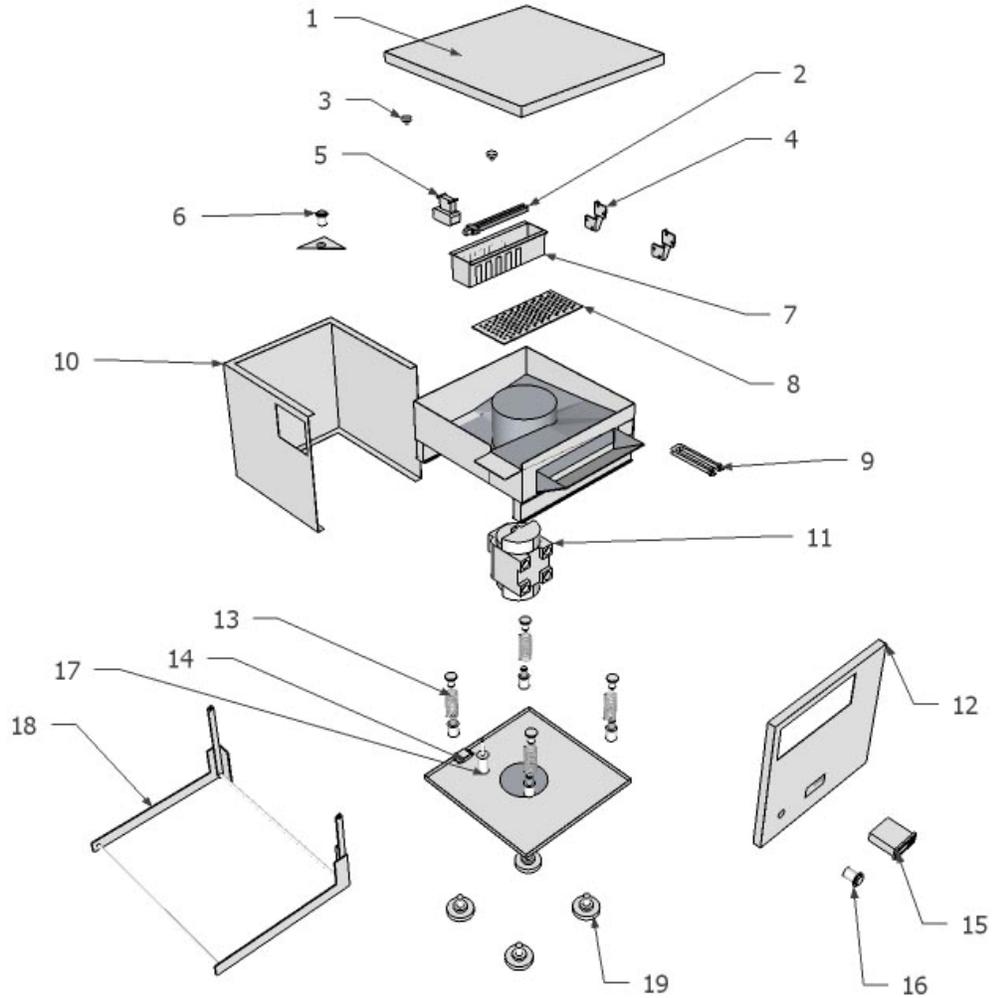
N°	DESCRIPTION	CDM 6K	CDM 12K
1	PLASTIC LID	144	143
2	PLASTIC LID FRAME	156	157
3	STAINLESS STEEL COVER	201	203
4	TANK COVER + LAMP COVER	210	211
5	ENTRY FRAME	222	223
6	REAR GRID	369	364
7	FRONT GRID	370	363
8	TANK	-	-
9	COMPLETE SPRING	012	1082
10	MOTOR-VIBRATOR	799	234
11	STAINLESS STEEL ELECTRIC PANEL	166	166
12	CHUTE	271	272
13	PERFORATED SIDE PANEL - LEFT	809	244
14	BASKET WITH HOLES	314	314
15	BASKET WITHOUT HOLES	313	313
16	BASKET HOLDER	218	219
17	ON/OFF (POWER) BUTTON	127	127
18	THERMOREGULATOR - *see NOTE	936	936
19	EXIT LABEL	231	232
20	FRONT PANEL	1011	1009
21	SUBFRAME	-	-
22	WHEEL WITH BRAKES	974	974
23	WHEEL WITHOUT BRAKES	973	973
24	PERFORATED SIDE PANEL - RIGHT	809	244
25	REAR PANEL	240	241
26	LIMIT SWITCH	027	027
27	HINGE	181	181
28	HEATING ELEMENT - see NOTE	1089	1090
29	ENTRY LINING	172	173
30	UV LAMP	206	206
31	LAMP HOLDER	719	719
32	LAMP COVER	-	-
33	PROBE WIRE - see NOTE	908	908
34	BOTTOM COVER ETL	-	-
35	FUSE HOLDER	1010	1010
36	THERMOSTAT	640	640
37	CONDENSER	1026	677
38	TERMINAL BLOCK	-	-
39	BALLAST	717	717
40	CABLE GLAND	-	-

EXPLODED PARTS DIAGRAM OF CDM 6K / 12K

Note: new parts on CDM 6K after s/n 11.1014  
new parts on CDM 12K after s/n 11.7021



## EXPLODED PARTS DIAGRAM – CDM STAR



Diag #	Part #	Description	Diag #	Part #	Description
1	923	Stainless steel lid	11	709	motor
2	206	UV lamp	12	924	side panel
3	406	rubber cap	13	933	Complete spring
4	181	stainless steel hinge	14	717	ballast
5	719	Lamp Holder	15	936	Temperature Control
6	027	limit switch and cable	16	127	light switch (Power)
7	782	Grid Protection	17		capacitor
8	760	front grid	18	761	Basket holder
9	989	Element	19	912	Leg
10	925	C Shaped panel			

